

THE DISTRIBUTION AND OCCURRENCE OF THE TANNER BEETLE, *PRIONUS CORIARIUS* L. (COL.: PRIONIDAE) IN GREAT BRITAIN

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ALPHABETICAL symbols in use are those advocated by Balfour-Browne (Kaufmann, 1989); italicised ones indicate widespread captures; bracketed letters signify that confirmatory evidence is still lacking. A dagger (†) represents an imported specimen.

Prionus coriarius L.

This, our largest and heaviest Longhorn, measuring up to 4.5 cm long, is the only indigenous representative of the large family of Prionidae. Local, sometimes not uncommon, it is found mainly in well-wooded regions where one of the principal growths is oak, a tree with which *Prionus* is frequently associated. The beetle occurs in two defined areas: west-north-westerly to Lancashire and Westmorland, and from the south-west peninsula along the whole of the Channel coast (but excluding the Isle of Wight), the Home Counties, and then eastwards to include East Anglia as far as the Wash.

Mansfield in Nottinghamshire loosely links these two regions. A more careful search may indicate that this handsome insect is more widespread in the Midland counties than is at present known. Welsh records are very scarce, due perhaps to the beetle's nocturnal habits, landscape changes in arboriculture, and not many Welsh Coleopterists. The Tanner Beetle is unknown in Scotland or Ireland.

ENGLAND: *BK BX CB CH DTEC EK EN ES EX GE GW HF HT L MX ND NE NH NM NW SD SE SH SL SP SR SS ST* (SW) SY† WC *WK WL WN WO*

WALES: *DB GM*

Although more often found in the moist roots and lower parts of dying and decaying oak trees, the larva of *Prionus* is amphixylophagous; it also occurs in the rotting stumps of alder, apple, ash, beech, birch, cherry, elm, hazel, holly, hornbeam, horsechestnut, plane, plum, Scots pine, silver fir, spruce, willow and very occasionally even telegraph poles and old posts. As the larvae prefer rotten roots they will tunnel through the soil in search of a new and edible pabulum. Very rarely are they found higher than a foot or so in upright trunks. When fully grown the larva is over 8cm long. It is parasitised by the Hymenopteron *Deuteroxorides albitarsus* Grav. and by several species of Diptera, namely, *Parasarcophaga aratrix* Pand., *Billaea microcera* Rond., *B. pectinata* Mg, and *B. subrotundata* Rond. Predators include the centipede, *Lithobius*, which will devour the eggs and young larvae, and possibly the larva of the Coleopteron *Melanotus rufipes*

Herbst. It is unlikely that the larvae of *Prionus* are preyed upon by woodpeckers as the former do not tunnel sufficiently high up the boles to attract these birds' attentions.

Pupation usually takes place in an ample soft earthen cocoon, 4.5cm long by 3cm wide, quite smooth inside, and some 1 to 3 inches underground somewhere near the roots of the host plant. This customary form of pupal chamber is sometimes encountered in the ground underneath a fallen log upon which the larva has fed. There are a few records of cocoons made from earth and wooden fragments bound together with larval secretions but this form of pupal cell is most unusual.

Metamorphosis takes from three to four years, the imagines emerging from May onwards until as late as October; however, the main eclosion months are mid-July and August. Their exit holes round the base of the host tree resemble those made by mice and are almost one inch in diameter.

In general, the males emerge before the females; neither sex survives beyond a month. Dead beetles, probably those that have eclosed in the autumn, are sometimes found apparently sheltering from the cold among exposed roots and in leaf drifts; there is no evidence to suggest that they hibernate or overwinter.

Prionus is crepuscular in habit, sluggish, and hides in the daytime. It appears at dusk, preferably on hot or sultry, even rainy evenings. In some southern localities it is still not uncommon, taking — not surprisingly in view of its size — to a somewhat heavy undulating flight. It has been found in the open on fennel and privet flowers, or at rest on old stumps and posts. *Prionus* is not a nectar seeking beetle; nevertheless, it is attracted to entomologists' "sugar". There are also records of its capture while circling round household lights.

The sexes are dimorphous; the male has very conspicuous 12-jointed serrate antennae; those of the female are 11-jointed, noticeably more slender and shorter.

A pugnacious beetle, *Prionus* stridulates loudly when picked up and during copulation. If several are found, they should always be boxed separately, the males in particular being ferocious fighters.

This beetle is not regarded as an economic pest despite that its larvae do reduce to frass the roots and boles of some standing delicate or partly diseased ornamental and parkland trees.

P. coriarius is figured among others by Martyn (1792), Donovan (1809) and Curtis (1838), but it was known to naturalists much earlier. Dr Thomas Moffet, whose young daughter had, it is recalled, a most fearsome encounter with an Arachnid as she partook of a 16th century version of yoghurt, writing well over three centuries ago about *Prionus* stated "*It hath a little broad head, great ox eyes, almost three fingers overthwart in length; it hath a forked mouth, gaping and terrible, with two very hard, crooked teeth: with these, while he gnaws the wood (I speak from experience) it*

doth perfectly grunt aloud like a young pig . . . and being wearied with flying, she useth them [the "horns"] for feet: for knowing that his legs are weak, he twists his horns about the branch of a tree, and so he hangs at ease . . .". The late Evelyn Duffy, who made a special study of the habits of *P. coriarius* (1946), never observed the Tanner Beetle suspended by its antennae!

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